REMARKS

I. Support for the Amendments

Claims 1-32 were originally in the application. Claims 1-25 and 38 have been canceled, and claims 29-32 have been withdrawn. Claims 26-27, 33-37, and 39-44 were previously in the application.

The previous Amendment, filed March 23, 2009, was entered by the Examiner, as described in the Advisory Action, mailed March 31, 2009. In addition to the entry of the claim amendments in the Amendment filed March 23, 2009, Applicants respectfully request subsequent amendment of the claims in the present Amendment.

Claims 26-27, 33-37, and 39-48 are currently in the application. In addition to the claim amendments made on March 23, 2009, claims 26, 40-41, and 43 are currently amended.

Support for amended claims 26, 40-41, and 43 can be found in the original specification, figures, and claims. Support for these amendments can also be found in the previous versions of these claims. No new matter has been added by virtue of these amendments. The amendments to claims 40-41 are made to make the language consistent with the amendments to claim 26.

Additional support for amended claims 26, 40-41, and 43 can be found, e.g., in the Abstract; on page 1, lines 17-18; from page 1, line 29, to page 2, line 4; from page 2, line 11, to page 3, line 5; on page 6, line 31; from page 6, line 27, to page 9, line 27; in Tables 1-3; and in the Examples and Figures.

II. Status of the Claims

Claims 1-32 were originally in the application. Claims 1-25 have been cancelled. Claims 26-32, which were previously non-elected claims in U.S.S.N. 09/354,664, were previously in the application. Claims 26-32 were subject to a restriction requirement. Claims 26-28 were elected.

In the previous amendment, claims 26-27, 33-37, 39, 43, and 45 were amended and new claims 46-48 were added.

The previous Amendment, filed March 23, 2009, was entered by the Examiner, as described in the Advisory Action, mailed March 31, 2009. In addition to the entry of the claim amendments in the Amendment filed March 23, 2009, Applicants respectfully request subsequent amendment of the claims in the present Amendment.

Claims 26-27, 33-37, and 39-48 are currently in the application. In addition to the claim amendments made on March 23, 2009, claims 26, 40-41, and 43 are currently amended.

III. Reiteration of the Request for a Corrected Filing Receipt

On 14 November 2003, Applicants filed a Request for Corrected Filing Receipt, but did not receive it. Most recently, Applicants reiterated their request in the Amendment filed on March 23, 2009. Applicants continue to await a revised, corrected filing receipt, as noted in the reminder requests in the Amendments filed on 28 November 2006, 13 July 2007 (copy also provided with Request for Continued Examination on 12 October 2007), and 9 May 2008.

Applicants hereby reiterate their request to receive the Corrected Filing Receipt forthwith.

IV. The Rejection of Claims 26-27, 33-37, and 39-48 under 35 U.S.C. §103(a) is Traversed

In the Advisory Action, mailed March 31, 2009, the Examiner has maintained the rejection of claims 26-27, 33-37, and 39-48 under 35 U.S.C. § 103(a), alleging obviousness over Rogers et al. (Analyt. Biochem. 247: 223-227 [May 1997]; "Rogers & Burgoyne" or "Rogers") in view of Burgoyne (U.S. Patent 5,496,562) and in view of Kahn et al. (Methods Enzymol. 68: 268-280 [1979]; "Kahn"). Applicants respectfully traverse this rejection.

The Patent Office alleges:

> As presented previously, Rogers clearly shows that FTA® medium ruptures bacterial cell walls such that PCR reagents can effectively amplify cellular DNA. Thus it is clear that once applied to FTA® medium, bacterial cell walls are disrupted such that cellular DNA is liberated from the cell. Furthermore, Burgoyne clearly shows that pure plasmid DNA can be eluted from FTA® medium. Thus, it is clear that the circular structure of bacterial plasmid DNA does not interfere with or prevent elution from FTA® medium. Given these teachings, a skilled artisan would have a reasonable expectation of success when attempting to elute plasmid DNA from a bacterial culture on FTA® medium. Applicant is reminded that obviousness does not require absolute predictability (see MPEP 2143.02, for example).
>
> Thus, the rejection is maintained.

Applicants have already discussed these references at length. For the reasons already on record, Applicants respectfully traverse this rejection.

Applicants note that Rogers & Burgoyne describes experiments with genomic DNA. Kahn mentions how plasmid DNA can be separated from genomic DNA on the basis of its smaller size or its unique properties of it being a covalently closed circular DNA or, in other words, less complex than genomic DNA, but this reference actually teaches away from the present invention. For example, as Applicants have previously noted, plasmid DNA behaves differently from genomic DNA based on its composition and its structure. It would not be expected that less complex DNA would interact with a solid matrix in the same manner as genomic DNA, so it would not be intuitive that plasmid DNA could be isolated on a solid matrix. In point of fact, prior separation of plasmid DNA from genomic DNA is preferred, as shown in Old & Primrose and other references previously submitted by Applicants for the

Examiner's consideration. Burgoyne, however, only demonstrates DNA isolation directly from cells for genomic DNA, whereas the isolation of plasmid DNA requires pre-purification prior to contact with the solid medium. It would not have been at all clear, much less a matter of reasonable expectation, that isolation of plasmid DNA directly from cells (despite the presence of genomic DNA) would be possible, particularly given the low copy numbers of some plasmids (see, e.g., Lerner & Inouye, "Low copy number plasmids regulated low-level expression of cloned genes in *Escherichia coli* with blue/white insert screening capability," Nucl. Acids Res. 18(15): 4631 (1990)). One of ordinary skill in the art would have recognized that plasmid DNA in general constitutes a small fraction of DNA in the host cell and that the situation would be exacerbated where the plasmid copy number is low. In such a situation, efficient retention and recovery would be important, while those of ordinary skill in the art would have considered removal of RNA and genomic DNA to have been a usual step during isolation procedures (see, e.g., Sambrook et al., Molecular Cloning: A Laboratory Manual (2nd ed.), Cold Spring Harbor Laboratory Press (Cold Spring Harbor, NY: 1989), pp. 1.1-1.11, 1.21-1.24, and 1.51).

Again, Applicants respectfully draw the Examiner's attention to the Examination Guidelines for Determining Obviousness under 35 U.S.C. 103 in View of the Supreme Court Decision in *KSR International Co. v. Teleflex Inc.*, Fed. Reg. 72(195): 57526-57535 (Oct. 10, 2007). The Patent Office has failed to show that the present invention has in any way combined prior art elements according to known methods in these three references to yield predictable results, or that this is a case of simple substitution of one known element for another to obtain predictable results or use or application of a known technique to improve a similar device in the same way. The Patent Office has not shown that the present invention is the result of predictable variation or that it resulted from the choice from a finite number of identified, predictable solutions having a reasonable expectation of success, nor has it shown that it would have been obvious to try with a reasonable expectation of success. Moreover, there is no teaching, suggestion, or motivation in Rogers & Burgoyne, Burgoyne, and/or Kahn that would have led one of ordinary skill in the art to modify one or more of these references or to combine their teachings to result in the method of plasmid isolation directly from host cells (rather than pre-purified) as in the present invention. [See, e.g., Examination Guidelines for Determining

Obviousness under 35 U.S.C. 103 in View of the Supreme Court Decision in *KSR International Co. v. Teleflex Inc.*, Fed. Reg. 72 (195): 57526-57535, 57529 (Oct. 10, 2007).]

With respect to MPEP 2143, once again, the present invention is **not** a simple substitution (see, e.g., *In re O'Farrell*, 853 F.2d 894, 7 USPQ2d 1673 (Fed. Cir. 1988)), because there would have been no reasonable expectation of success given the state of the art at the time the invention was made (as discussed above and in previous Amendments) (see also MPEP 2143.02); it is **not** the result of predictable variation or that it resulted from the choice from a finite number of identified, predictable solutions having a reasonable expectation of success, **nor** would it have been obvious to try with a reasonable expectation of success (see, e.g., *Pfizer v. Apotex*, 480 F.3d 1348, 82 USPQ2d 1321 (Fed. Cir. 2007); *Ex parte Kubin*, 83 USPQ2d 1410 (Bd. Pat. App. & Int. 2007)), due to the differences in properties between genomic DNA and plasmid DNA; **nor** was there any teaching, suggestion, or motivation in Rogers & Burgoyne, Burgoyne, and/or Kahn that would have led one of ordinary skill in the art to modify one or more of these references or to combine their teachings to result in the method of plasmid isolation directly from host cells (rather than pre-purified) as in the present invention (MPEP 2143). These points were addressed by the previously filed Declaration of Dr. Walter King, filed March 23, 2009.

Therefore, it is **not** intuitive that adding the cells directly would have purified the plasmid DNA, nor would one of ordinary skill in the art have considered it obvious to try with any reasonable expectation of success given the emphasis in the art of (1) the different properties of genomic DNA vs. plasmid DNA and (2) the need, at least for some purposes, to separate the two.

In view of the foregoing, Applicants respectfully submit that remaining claims 26-27, 33-37, and 39-48 fulfill the requirements of 35 U.S.C. §103(a), and request the Examiner's reconsideration of these claims accordingly.

V. Request for an Interview or a Telephone Interview

Applicants respectfully request the Examiner to contact Applicants' undersigned representative (617-517-5516 or 617-239-0100) to schedule an interview or a telephone interview regarding the above-referenced case.

CONCLUSION

In view of the foregoing amendments and remarks, the present application is respectfully considered in condition for allowance. An early reconsideration and notice of allowance are earnestly solicited.

It is believed that all outstanding rejections have been addressed by this submission and that all the claims are in condition for allowance. If discussion of any amendment or remark made herein would advance this important case to allowance, the Examiner is invited to call the undersigned as soon as convenient.

Applicants hereby request a two-month extension of time for the Amendment and accompanying materials. If, however, a petition for an additional extension of time is required, then the Examiner is requested to treat this as a conditional petition for an extension of time and the Commissioner is hereby authorized to charge our deposit account no. 04-1105 for the appropriate fee. Although it is not believed that any additional fee (in addition to the fee concurrently submitted) is required to consider this submission, the Commissioner is hereby authorized to charge our deposit account no. 04-1105 should any fee be deemed necessary.

Respectfully submitted,

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